



## CITY OF LODI

## COUNCIL COMMUNICATION

AGENDA TITLE: "Request for Proposal" to Furnish an Electronic Meter Reading System


MEETING DATE: March 20, 1991

PREPARED BY: Finance Director

RECOMMENDED ACTION: That the City Council approve the "Request for Proposal" to furnish an electronic meter reading system for the City of Lodi Finance Department and authorize advertisement for responses.

BACKGROUND INFORMATION: This "Request for Proposal" would solicit responses to furnish an electronic meter reading system for the City of Lodi. This system would increase the efficiency and accuracy of the meter reading and billing functions.

FUNDING: The funding for the electronic meter reading system was approved by the City Council as part of the 1990-91 Budget. Total funds appropriated were \$43,790.

  
Robert H. Holm  
Finance Director

RHH:DLW:ss

Attachment

Prepared by Diana L. White, Assistant Finance Director

APPROVED: 

THOMAS A. PETERSON  
City Manager

REC-100-00000

City of Lodi  
Request for Proposal  
Electronic Meter Reading System

ADMINISTRATIVE INFORMATION

1. Vendor's Responsibilities

The City of Lodi is soliciting proposals for the equipment described herein. Responses to this Request for Proposal must be received by The City of Lodi no later than April 19, 1991 at 2:00 p.m.

- A. Vendor should read and understand the circumstances and procedures under which this proposal is let.
- B. Failure to respond to any requirements outlined in this Request for Proposal, or failure to enclose copies of the required documents, may disqualify the proposal. Vendors failing to submit a proposal in response to this Request should so advise in writing to preclude exclusion from future proposal requests.
- C. All responses are to be firm offer for no less than ninety (90) days and will be regarded by The City of Lodi as vendor's best and final offer.
- D. The City of Lodi reserves the right to reject any or all proposals.

2. Evaluation and Award

Evaluations will be based upon vendor's response to requirements specified herein, as well as price for equipment offered.

3. General Instructions

- A. This Request for Proposal outlines the requirements for an electronic meter reading system to be installed at The City of Lodi. The City requires the capability to read electric and water meters.
- B. The system will be installed in Lodi, and will be used by four meter readers at one central location.
- C. The system must be comprised of new equipment, all major components of which must be produced by established manufacturers.
- D. FOB point is Lodi, installed.

E. Host computer: IBM AS/400, model 45.

4. Contracts

All technical questions should be directed to: Roy Todd, Data Processing Manager, (209) 333-6761.

All other questions should be directed to: Robert H. Holm, Finance Director, (209) 333-6761.

5. Proposal Format Instructions

Each vendor's response shall be organized in a similar fashion outlined below:

Section 1: Executive Summary

Section 2: System Overview/Network Configuration

Section 3: Hardware Description

Section 4: Software Description

Section 5: Implementation and Training

Section 6: System Maintenance and Support

Section 7: Management Reports

Section 8: System Pricing

Section 9: Client List

|                    |             |                      |
|--------------------|-------------|----------------------|
| Conformance Table: | Conform, or |                      |
| (See Exhibit A)    | Alternate   | -Include explanation |
|                    | Exception   | -Include explanation |

SPECIFICATIONS

Section 1- Executive Summary

Summarize the highlights, significant features, general conclusions, and any other pertinent information regarding your System. Include company history, organizational structure, number of years in business and key technical and administrative contact people.

Section 2- System Overview/Network Configuration

Briefly describe the system flow, listing each component and how they interface. Detail the proposed system configuration.

### Section 3- Hardware Description

Provide a detailed description of all hardware components of the System including the features and functions:

- A. Hand-Held Data Capture Terminals: These devices will be used in the field by meter readers to input customer meter data, including readings and conditions at the customer meter site.

#### 1. Collection Characteristics/Memory

All devices must be completely self-contained and have adequate memory and internal power sources to perform meter reading of field service activities for an eight (8) hour shift consisting of up to 800 readings.

- a. Program memory used in the data capture devices must be solid-state RAM. EPROM memory is not acceptable.
- b. The device must be capable of storing and updating information for approximately 800 readings.
- c. The device must be capable of providing an interface to read Hexagram and other remote meter reading options for both water and electric meters.

#### 2. Keyboard

The keyboard must provide:

- a. The capability of customized keytops consisting of alphanumeric, "can't read" reasons, and comment/service request keys. Key tops must be in color coordinated groups.
- b. Environmental protection with no covers.
- c. Alphanumeric data entry with capability for free-form messages and single keystroke entry of comments and can't read reasons.
- d. Audible acknowledgement of data entry.
- e. Survey key.
- f. New meter key.
- g. Account information change key.
- h. Capability for reading the route in forward, reverse, or out of sequence.
- i. Capability of literal translations on the actual key top, (one button will encode a preset message).

#### 3. Display

The devices must use Liquid Crystal Display (LCD) technology. Display size (number of characters) shall be at least 64 characters on 4 lines.

4. Power Supply

All data capture devices must be equipped with:

- a. Removable, rechargeable nickel-cadmium batteries.
- b. Back-up battery supply.
- c. Low power indicator.
- d. Battery charging port must be separate from the communication cradle.

5. Environmental Protection

The unit must be completely weatherproof and capable of operating in bad weather conditions such as rain or snow or fog. The unit must be capable of operating with ambient temperatures ranging from -20 degrees Fahrenheit to +122 degrees Fahrenheit without use of cases, plastic coverings, etc.

6. Internal Time Clock

The data capture devices must have internal clocking to establish the read times for each account. The unit must display on command current time by HH,MM,SS, and current month, day and year.

7. High/Low Range Verification

The unit must have the capability to perform two ranges of HI/LO check functions prior to the reading being accepted.

8. Manufacturer

The hand-held device must be manufactured and supported by the vendor submitting the proposal and must be specifically designed to meet the rigorous demands of utility meter reading.

B. Interface Devices: These devices must be provided to allow the transfer of data between the hand held data capture devices and the utility mainframe, via a personal computer.

1. The Personal Computer compatible with the vendor's system will be recommended by the vendor to integrate with the System, store and validate data from the field, and exchange data with the host data processing facilities.
2. A printer will be recommended by the vendor with the Personal Computer for report generation.
3. Communications facilities between the Personal Computer and The City of Lodi host data processing facilities will be provided by the utility. The vendor will work with The City of Lodi to recommend an appropriate file transfer package.
4. Include PC requirements.
5. The device, when interfaced with a PC, must provide the operator with the capability to monitor data transmission by displaying appropriate route information and audit data.

- C. Battery Chargers: The proposed System must have battery chargers. The chargers must be capable of recharging the batteries used in the Data Capture device in twelve (12) hours or less and must offer a means of reconditioning the batteries in fourteen (14) hours or less.

#### Section 4- Software Description

Describe the software packages necessary to implement your System.

- A. Electronic Meter Reading software must interface with the Customer Accounting System running on the host mainframe and provide all functions necessary to accommodate transfer and store data via the personal computer, including the storage of data adequate for five (5) days of meter reading activities (in-bound and out-bound) at the PC.

##### Additional Features for Meter Reading

The unit must also provide for the following:

- 1) Route number identification
- 2) Reader ID number
- 3) Special route instructions
- 4) Data entry of meter readings for each type of meter read must be selectable to be right to left or left to right by the meter reader.
- 5) Vehicle number and odometer reading
- 6) Log-on and Log-off procedures
- 7) Meter read entry displays
- 8) Customer address
- 9) Customer name or business name
- 10) Meter location
- 11) Meter number
- 12) No access meters
- 13) Special messages/instructions to the meter reader
- 14) Special messages from the meter reader
- 15) Out-of-range meter processing
- 16) Search (by number, sequence number, account number, name, address, skipped readings, meters with can't read reasons, must read meters, saved meters, all meters forward or backward.
- 17) Scroll and Review (Name, Address, Meter Number, backward and forward)
- 18) Survey functions, both forced and optional
- 19) Meter change
- 20) Add Meter
- 21) Total Route resequencing
- 22) Status of reading/route
- 23) Skipped meters
- 24) Ability to update account information
- 25) Log-out procedure

- 26) Route-splitting in the office
- 27) Minimum of eight digits on meter.

#### Section 5- Implementation/Training

Detail all implementation/training services including documentation to be provided by the vendor. Include a detailed implementation schedule delineating all activities, tasks and responsibilities of both vendor and City of Lodi personnel. Documentation is critical and must be provided.

#### Section 6- System Maintenance and Support

- A. Specify the warranty period.
- B. Maintenance Services: Specify details of the vendor's support package:
  1. Hardware Maintenance:  
Specify maintenance and support capabilities. Include the items listed below:
    - a. If the hardware maintenance support is provided by other than the vendor, detail the arrangements for that support.
    - b. Detail proposed procedure for response to calls for emergency service, including maximum time to respond and time to repair.
  2. Software Maintenance:
    - a. Specify procedures to correct errors discovered in the software and reported to the vendor by the City of Lodi.
    - b. Specify responsibility and method for installing new releases of software and any costs for new releases and installation.
    - c. Describe the scope of continuing software support for the design and implementation enhancements.

#### Section 7- Management Reports

Detail your system's ability to provide Management Reports to user locations along with samples of your standard reports.

- A. Examples of requested reports are:
  1. Route Status Report
  2. Abnormal Read Report
  3. Service Request Report
  4. Detailed Route Report
  5. Survey Report
  6. Meter Reader Statistics
  7. Statistical Summary

8. Mini-Computer (hand-held device) summary
  9. Mini-Computer Input Report
  10. Mini-Computer Output Report
  11. Mini-Computer Input File Control Totals
  12. Mini-Computer Output File Control Totals
- B. Explain your system's capability to customize existing reports and create new reports.

#### Section 8- System Pricing

- A. Specify costs for purchase of the proposed system. Indicate unit price for each vendor provided component.

System components include:

Hardware  
Software  
Implementation/Training Services  
Maintenance Costs  
Optional Accessories including remote water and electric device costs.  
Sales Tax

- B. Specify and estimate any other costs associated with the implementation of the system.

#### Section 9- Client List

Vendor will provide a listing of all clients. References must include name and phone number of contact person.

#### Submission of Proposal

Seven copies of the proposal and other pertinent information are to be submitted to:

Robert H. Holm, Finance Director  
City of Lodi  
221 W. Pine Street, P.O. Box 3006  
Lodi, CA 95241-1310

#### Due Date and Award Date

Written proposals are due prior to 2:00 p.m., April 19, 1991. Proposals delivered after 2:00 p.m. will not be accepted. The award of the contract by the City Council is expected to be made at the May 1, 1991 or May 15, 1991 regular meeting of the City Council.

Copies of the RFP may be picked up at the office of the Finance Director, 221 West Pine Street, Lodi, California or requested to be



mailed by calling (209) 333-6761 (ask for Finance Department  
Secretary, Sandy Smith).

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David Hinchman  
Mayor, City of Lodi

DW:elb

Attachment

CITY OF LODI - REQUEST FOR PROPOSAL  
METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

SPECIFICATIONS

Conformance  
Y    A    E  
=====

A. HAND HELD DATA CAPTURE  
TERMINALS

1. Collection Characteristics/  
Memory

All devices must be completely self-contained and have adequate memory and internal power sources to perform meter reading or field service activities for an 8 hour shift consisting of up to 800 meter reads.

- a. Program memory used in the data capture device must be solid-state RAM. EPROM memory is not acceptable.
- b. The device must be capable of storing and updating information for approximately 800 reads.
- c. The device must be capable of providing an interface to read Hexagram and/or other remote meter reading options for both electric and water meters.

2. Keyboard. The keyboard must provide:

- a. The capability of customized keytops consisting of alpha-numeric, "can't read" reasons, and comment/service request keys. Key tops must be color-coordinated groups.
- b. Environmental protection with no covers.

CONFORMANCE KEY

Y = Yes, conforms to Specification  
A = Alternate provided for Specification, please describe  
E = Exception to Specification, please describe

CITY OF LODI - REQUEST FOR PROPOSAL  
METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

| SPECIFICATIONS<br>=====   | Conformance |   |   |
|---|-------------|---|---|
|   | Y           | A | E |
| =====   |             |   |   |
| c. Alpha-numeric data entry with capability for free-form messages and single keystroke entry of comments and can't read reasons.             |             |   |   |
| d. Audible acknowledgement of data entry.   |             |   |   |
| e. Survey Key.  |             |   |   |
| f. New meter key.   |             |   |   |
| g. Account information change key.  |             |   |   |
| h. Capability of reading the route in forward or reverse, or out of sequence.   |             |   |   |
| i. Capability of literal translations on the actual key top (one button will encode a preset message).  |             |   |   |
| 3. Display  |             |   |   |
| The devices must use Liquid Crystal Display (LCD) technology. Display size (number of characters) shall be at least 64 characters on 4 lines. |             |   |   |
| 4. Power Supply   |             |   |   |
| All data capture devices must be equipped with:   |             |   |   |
| a. Removable, rechargeable nickel-cadmium batteries.  |             |   |   |
| b. Back-up battery supply.  |             |   |   |
| c. Low power indicator.   |             |   |   |

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CI OF LODI - REQUEST FOR PROPOSAL  
METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

SPECIFICATIONS

Conformance  
Y A E  
=====

- d. Battery charging port  
must be separate from the  
communications cradle.

5. Environmental Protection

The unit must be completely  
weatherproof and capable of  
operating in bad weather  
conditions such as rain or  
snow or fog. The unit must  
be capable of operating with  
ambient temperatures ranging  
from -20 to +122F without use  
of cases, plastic coverings,  
etc.

6. Internal Time Clock

The Data Capture devices must  
have internal clocking to  
establish read times for each  
account. Must display on  
command current time by HH,  
MM, SS and current month, day  
and year.

7. High/Low Range Verification

The unit must have the  
capability to perform two  
ranges of HI/LO check  
functions prior to the  
reading being accepted.

8. Manufacturer

The hand-held device must be  
manufactured and supported by  
the vendor submitting the  
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specifically designed to meet  
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METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

SPECIFICATIONS

Conformance  
Y   A   E  
=====

B. INTERFACE DEVICES

These devices must be provided to allow the transfer of data between the hand-held data capture device and the City's mainframe computer, via a Personal Computer.

1. The remote device must include PC and printer recommendations.

C. BATTERY CHARGES

The proposed system must have battery chargers. The chargers must be capable of recharging the batteries used in the hand-held device in twelve (12) hours or less and must offer a means of reconditioning the batteries in fourteen (14) hours or less.

D. ROUTE MANAGEMENT SOFTWARE

1. Electronic Meter-Reading software must interface with the City of Lodi Utility Billing System running on the host mainframe and provide all functions necessary to accommodate transfer and store data via the PC, including the storage of data adequate for five (5) days of meter reading activities (in-bound and out-bound) at the PC.
2. The PC software must have a user interface utilizing pulldown menus and windowing.

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CITY OF LODI - REQUEST FOR PROPOSAL  
METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

SPECIFICATIONS

Conformance  
Y A E  
=====

E. IMPLEMENTATION AND TRAINING

Detail all implementation and training services including documentation to be provided by the vendor. Include a detailed implementation schedule delineating all activities, tasks and responsibilities of both the vendor and the City of Lodi personnel and system documentation.

F. SYSTEM MAINTENANCE AND SUPPORT

1. Specify the warranty period.
2. Maintenance Services. Specify details of the vendor's support package:
  - a. Hardware Maintenance:
    1. If the hardware maintenance support is provided by other than the vendor, detail the arrangements for support.
    2. Detail proposed procedure for response to calls for emergency service, including maximum time to respond and time to repair.
  - b. Software Maintenance:
    1. Specify procedures to correct errors discovered in the software and reported to the vendor.
    2. Specify responsibility and method for installing new releases of software and any costs for new releases and install.

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METER READING SYSTEM CONFORMANCE TABLE

EXHIBIT A

SPECIFICATIONS

Conformance  
Y A E  
=====

3. Describe the scope of continuing software support for the design and implementation of enhancements.

G. SOFTWARE MANAGEMENT REPORTS

H. CONFORMANCE TOTALS

I. SYSTEM PRICING

CONFORMANCE KEY

Y = Yes, conforms to Specification  
A = Alternate provided for Specification, please describe  
E = Exception to Specification, please describe